General Specifications

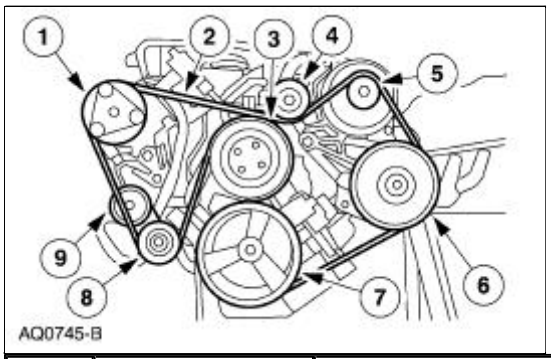
Item	Specification
Accessory drive belt	6 ribs
Supercharger drive belt	8 ribs

Torque Specifications

Description	Nm	lb-ft	lb-in
Belt idler pulley bolt	25	18	—
Drive belt tensioner bolt — 3.8L	82	60	—
Drive belt tensioner bolt — 4.6L	10	—	89
Drive belt tensioner bolt — Supercharged engine	25	18	—
Cooling hose mounting bolt	25	18	—
Belt idler support assembly bracket bolts	25	18	—
Air intake scoop bolts	25	18	—
Air intake scoop bracket bolt	25	18	—
Air intake scoop bracket nuts	25	18	—
Air intake scoop bracket throttle body nut	9	—	80
Exhaust gas recirculation (EGR) vacuum regulator solenoid bolts	10	—	89

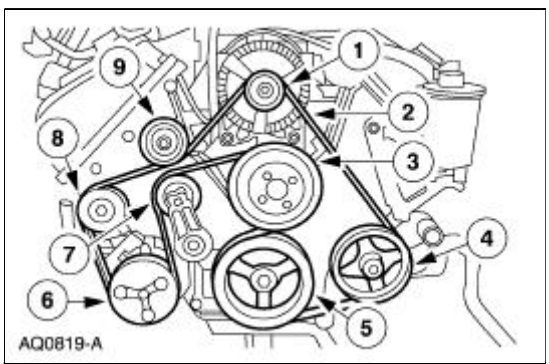
Accessory Drive

Component Locations— 3.8L



Item	Part Number	Description
1	19D784	A/C clutch pulley
2	8620	Drive belt
3	8509	Coolant pump pulley
4	8678	Belt idler pulley
5	10344	Generator pulley
6	10344	Power steering pump pulley
7	63126	Crankshaft vibration damper
8	6B209	Drive belt tensioner
9	—	Drive belt tensioner (part of 6B209)

Component Locations—4.6L

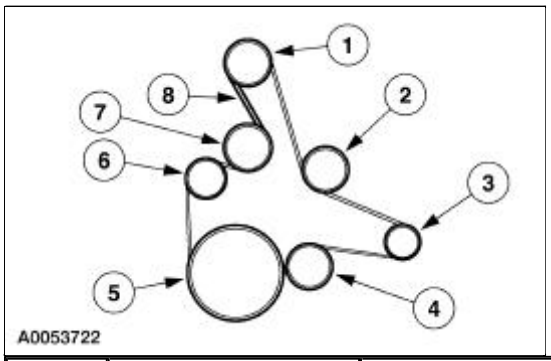


Item	Part Number	Description
1	10344	Generator pulley
2	8620	Drive belt
3	8A528	Coolant pump pulley
4	3D673	Power steering pump pulley
5	6316	Crankshaft vibration damper
6	19D784	A/C clutch pulley

7	6B209	Drive belt tensioner
8	19A216	Belt idler pulley
9	19A216	Belt idler pulley

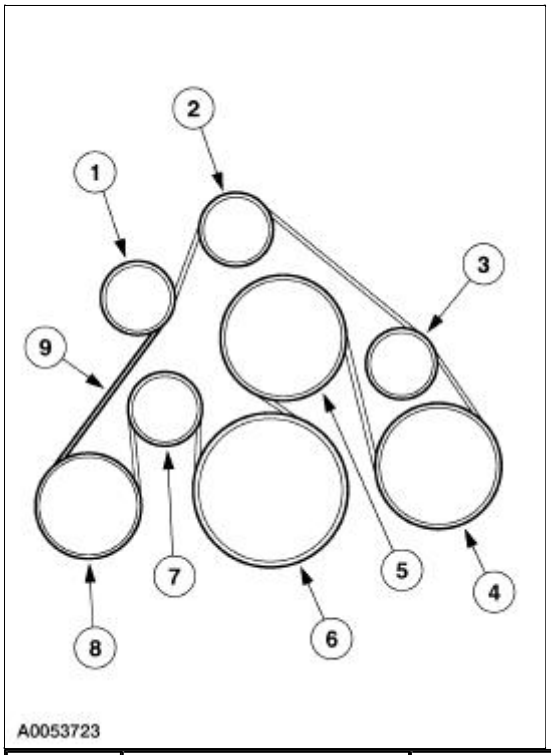
Accessory Drive —Cobra

Component Locations —Supercharger Accessory Drive



Item	Part Number	Description
1	—	Supercharger pulley
2	8678	Belt idler pulley
3	10344	Generator pulley
4	8678	Belt idler pulley
5	6C254	Crankshaft extension pulley
6	6B209	Belt tensioner
7	8678	Belt idler pulley
8	8620	Drive belt

Component Location —Accessory Drive



Item	Part Number	Description
1	8678	Belt idler pulley
2	8678	Belt idler pulley
3	8678	Belt idler pulley
4	3A733	Power steering pulley
5	10344	Coolant pump pulley
6	6C254	Crankshaft pulley
7	6B209	Belt tensioner
8	19D784	A/C clutch pulley
9	8620	Drive belt

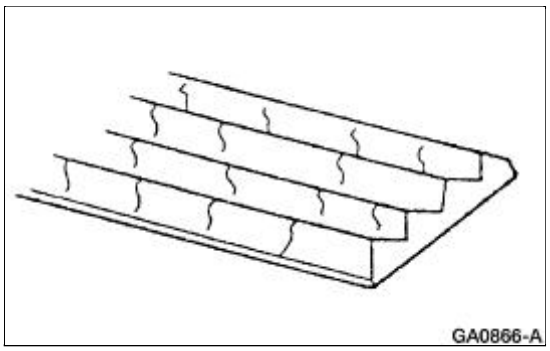
Accessory Drive

Inspection and Verification

1. Verify customer concern by running the engine.
2. Inspect the drive belt for chunking, fraying and wear.
3. Check the drive belt for correct routing.

Drive Belt Cracking/Chunking/Wear

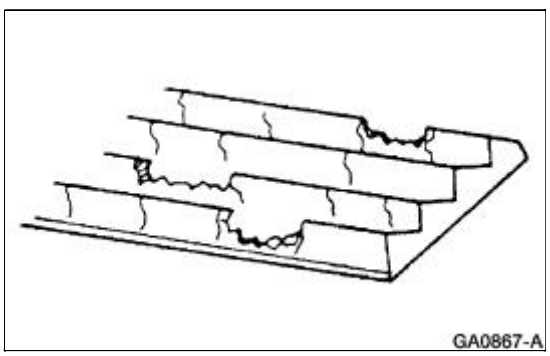
V Ribbed Serpentine Drive Belt With Cracks Across Ribs



The accessory drive:

- has a single serpentine drive belt.
- has an automatic drive belt tensioner.
- does not require adjustment.

V Ribbed Belt With Chunks of Rib Missing



Symptom Chart

Symptom Chart

Condition	Possible Sources	Action
• Drive belt noise, chirping, flutter	• Defective/worn drive belt. • Misaligned pulley. • Pulley runout. • Damaged accessories. • Fluid contamination of drive belt.	• GO to Component Tests, Drive Belt, Noise/Flutter.
	• Damaged or worn drive belt tensioner.	• GO to Component Tests, Belt Tensioner, Automatic.
• Premature drive belt wear	• Defective drive belt. • Misaligned pulley. • Pulley runout. • Damaged accessories. • Incorrectly installed drive belt.	• GO to Component Tests, Drive Belt Noise/Flutter and Drive Belt Misalignment diagnosis.

Component Tests

Drive Belt Noise/Flutter

Drive belt chirp occurs due to pulley misalignment or excessive pulley runout. It can be the result of a damaged pulley or an incorrectly aligned pulley.

To correct, determine the area where the noise comes from. Check each of the pulleys in that area with a straightedge to the crankshaft pulley, looking for accessory pulleys out of position in the fore/aft direction or at an angle to the straightedge.

Drive belt squeal is an intermittent noise that occurs when the drive belt slips on a pulley during certain conditions, such as: engine start up, rapid engine acceleration, or A/C clutch engagement.

Drive belt squeal can occur:

- if any of the accessories are damaged, have a worn or damaged bearing, internal torsional resistance above normal. All accessories should be rotatable by hand in the unloaded condition. If not, inspect the accessory.
- if fluid gets on the drive belt. This includes power steering fluid, engine coolant, engine oil or air conditioning system lubricant. If fluid does get on the drive belt during service, clean the drive belt with soap and water and thoroughly rinse with clean water.
- **NOTE:** The drive belt tensioner arm should rotate freely without binding.

  if the drive belt is too long. A drive belt that is too long will allow the drive belt tensioner arm to go all the way to the arm travel stop under certain load conditions, which will release tension to the drive belt. If the drive belt tensioner indicator is outside the installation wear range window, install a new drive belt.
- if the drive belt tensioner is worn or damaged.

Belt Tension

NOTE: Drive belt tension is not adjustable.

The drive belt tensioner automatically adjusts drive belt tension.

Belt Tensioner, Automatic

Check the automatic drive belt tensioner:

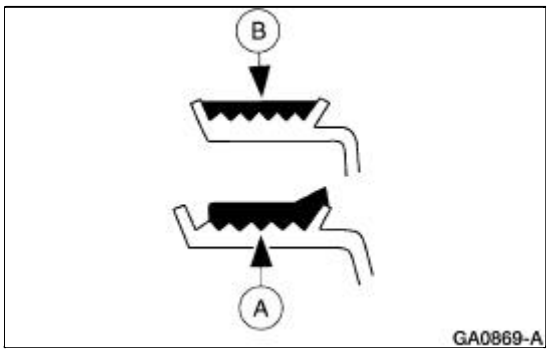
1. With the engine off, check for correct drive belt routing; refer to Accessory Drive . Repair as necessary.

2. Rotate the drive belt tensioner and check for a binding or frozen condition. Install new components as necessary.

Drive Belt Misalignment

CAUTION: Incorrect drive belt installation will cause excessive drive belt wear and may cause the drive belt to come off the drive pulleys.

Non-standard drive belts may track differently or incorrectly. If a drive belt tracks incorrectly, install it with an original equipment drive belt to avoid performance failure or loss of drive belt.



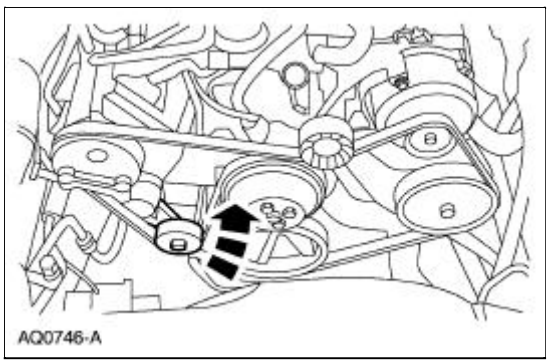
With the engine running, check drive belt tracking. If the (A) edge of the drive belt rides beyond the edge of the pulleys, noise and premature wear may occur. Make sure the (B) drive belt rides correctly on the pulley. If a drive belt tracking condition exists, proceed with the following:

- Visually check the drive belt tensioner for damage, especially the mounting pad surface. If the drive belt tensioner is not installed correctly, the mounting surface pad will be out of position. This will result in chirp and squeal noises.
- With the engine running, visually observe the grooves in the pulleys (not the pulley flanges or the pulley forward faces) for excessive wobble. Install new components as necessary.
- Check all accessories, mounting brackets and the drive belt tensioner for any interference that would prevent the component from mounting correctly. Correct any interference condition and recheck the drive belt tracking.
- Tighten all accessories, mounting brackets, and drive belt tensioner retaining hardware to specification. Recheck the drive belt tracking.

Accessory Drive Belt —3.8L

Removal and Installation

1. Rotate the drive belt tensioner counterclockwise and remove the drive belt.



2. **NOTE:** Make sure the drive belt is correctly installed on each pulley.

   To install, reverse the removal procedure.

   - Refer to Accessory Drive for drive belt routing.

Accessory Drive Belt —4.6L (2V) and (4V)

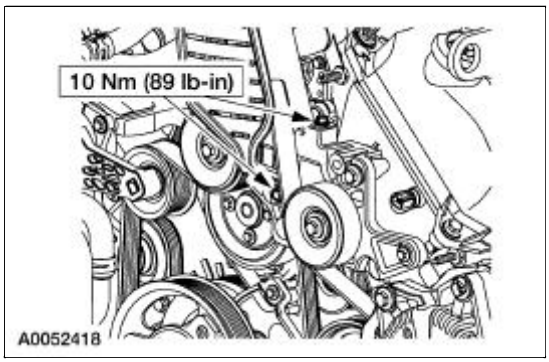
Removal and Installation

Mach I

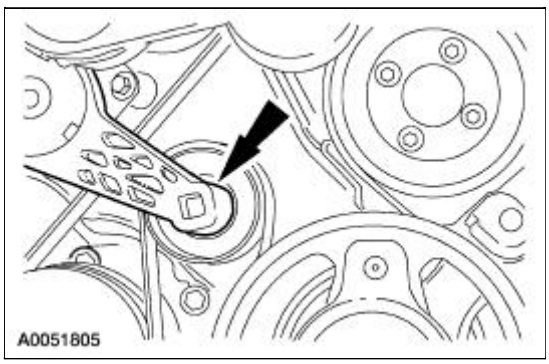
1. Remove the air intake scoop. For additional information, refer to Section 303-12 .

Cobra

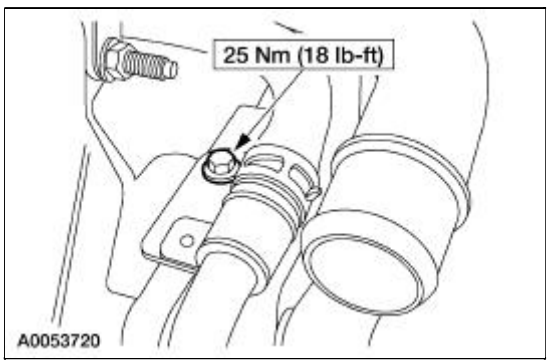
2. Remove the supercharger drive belt cover.



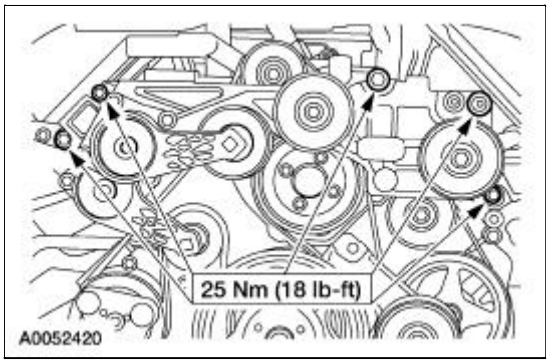
3. Rotate the supercharger belt tensioner clockwise and remove the supercharger belt.



4. Remove the coolant hose mounting bolt.



5. Remove the belt idler support bracket assembly.



6. Remove auxiliary crankshaft pulley. For additional information, refer to Section 303-01C .

All engines

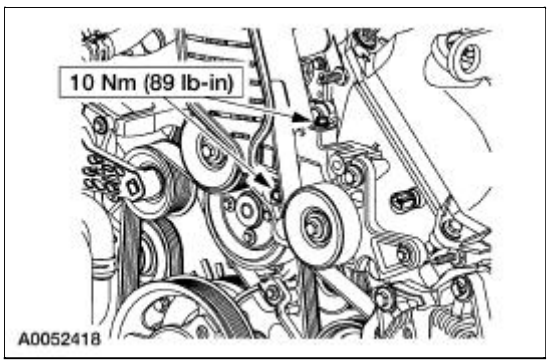
7. Rotate the belt tensioner and remove the accessory drive belt.
8. **NOTE:** Make sure the accessory drive belt is correctly installed on each pulley.

   To install, reverse the removal procedure.
   - Refer to Accessory Drive and Accessory Drive—Cobra for accessory drive belt routing.

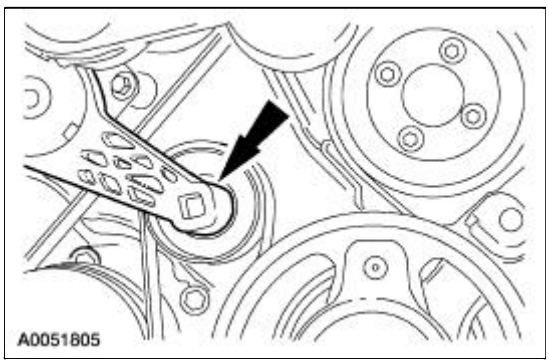
Supercharger Belt

Removal and Installation

1. Remove the supercharger drive belt cover.



2. Rotate the supercharger belt tensioner clockwise and remove the supercharger belt.



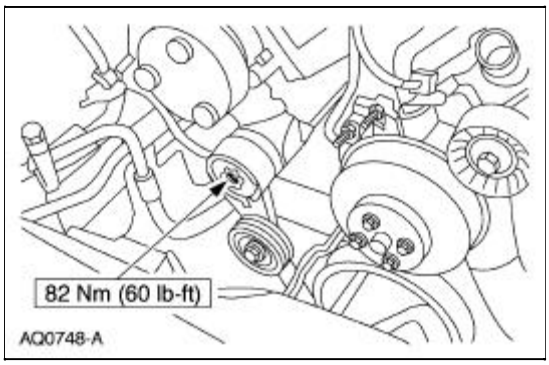
3. To install, reverse the removal procedure.

Accessory Drive Belt Tensioner —3.8L

Removal and Installation

1. Remove the drive belt. For additional information, refer to Accessory Drive Belt—3.8L in this section.

2. Remove the belt tensioner.
   - Remove the bolt.



3. To install, reverse the removal procedure.

Accessory Drive Belt Tensioner —4.6L (2V) and (4V)

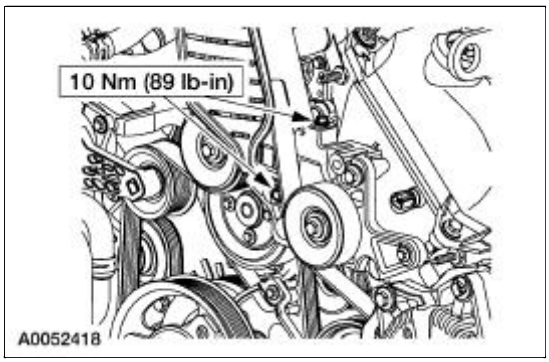
Removal and Installation

Mach I

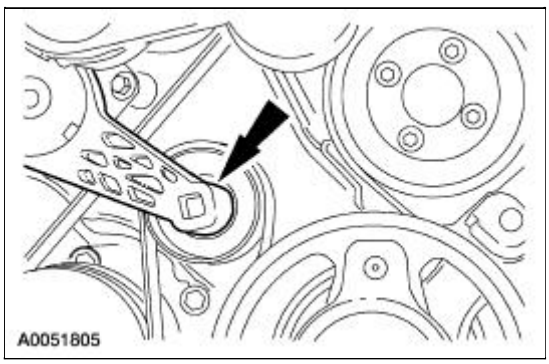
1. Remove the air intake scoop. For additional information, refer to Section 303-12 .

Cobra

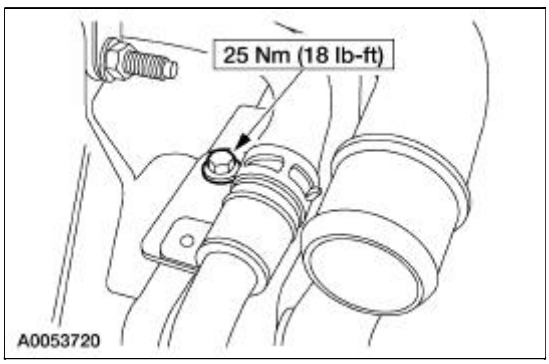
2. Remove the supercharger drive belt cover.



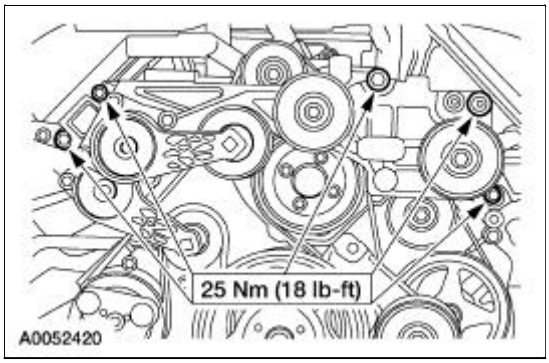
3. Rotate the supercharger belt tensioner clockwise and remove the supercharger belt.



4. Remove the cooling hose and tube assembly mounting bolt.

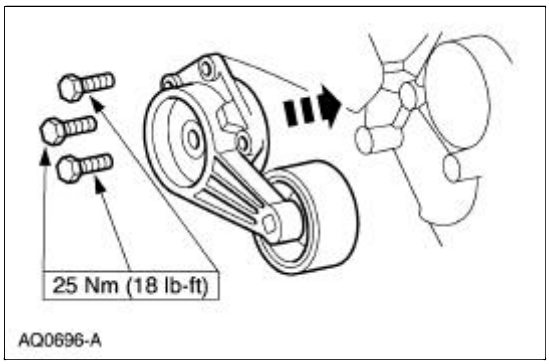


5. Remove the belt idler support bracket assembly.



6. Remove the accessory drive belt. For additional information, refer to Accessory Drive Belt—4.6L (2V) and (4V) in this section.

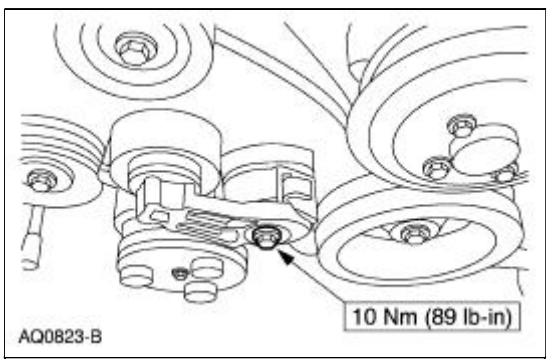
7. Remove the accessory drive belt tensioner.



All engines

8. Remove the accessory drive belt. For additional information, refer to Accessory Drive Belt Tensioner—4.6L (2V) and (4V) in this section.

9. Remove the belt tensioner.
   - Remove the bolt and the tensioner.

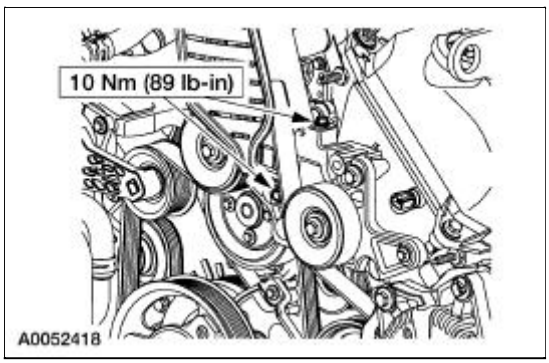


10. To install, reverse the removal procedure. Refer to Accessory Drive and Accessory Drive—Cobra for accessory drive belt routing.

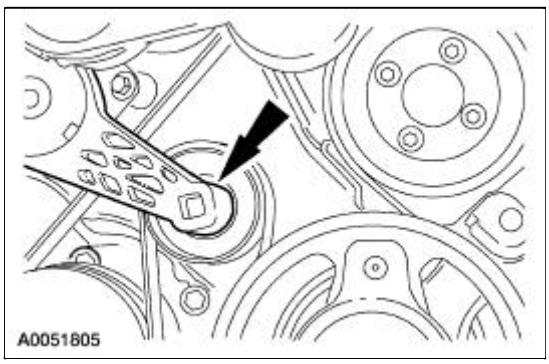
Supercharger Belt Tensioner

Removal and Installation

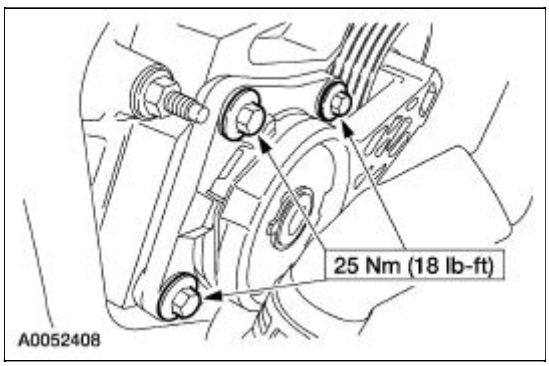
1. Remove the supercharger drive belt cover.



2. Rotate the supercharger belt tensioner clockwise and remove the supercharger belt.



3. Remove the bolts and the supercharger belt tensioner.



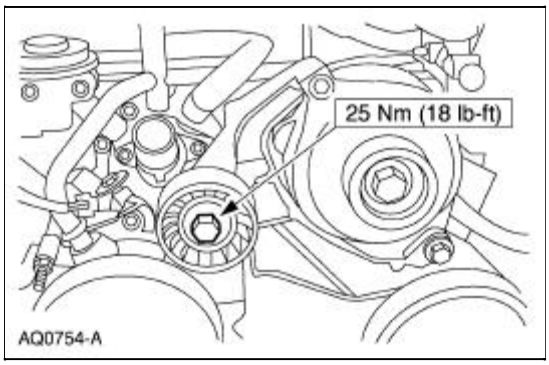
4. To install, reverse the removal procedure.

Accessory Drive Belt Idler Pulley —3.8L

Removal and Installation

1. Remove the drive belt. For additional information, refer to Accessory Drive Belt—3.8L in this section.

2. Remove the belt idler pulley.
   - Remove the bolt.



3. To install, reverse the removal procedure.

Accessory Drive Belt Idler Pulley —4.6L (2V) and (4V)

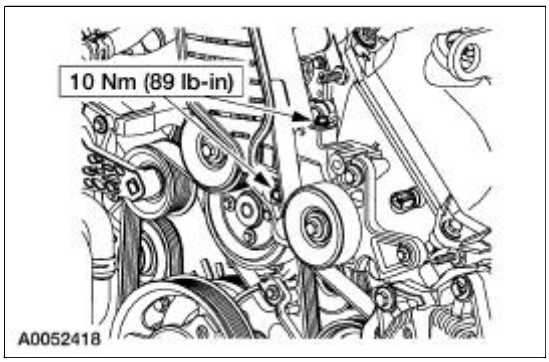
Removal and Installation

Mach I

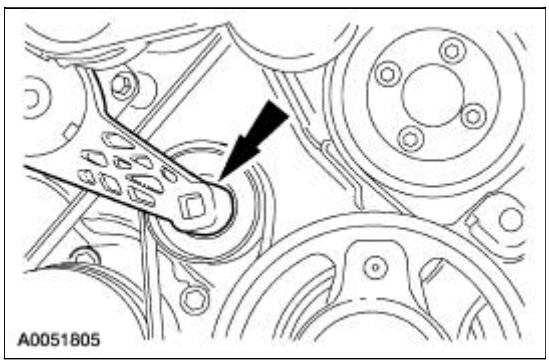
1. Remove the air intake scoop. For additional information, refer to Section 303-12 .

Cobra

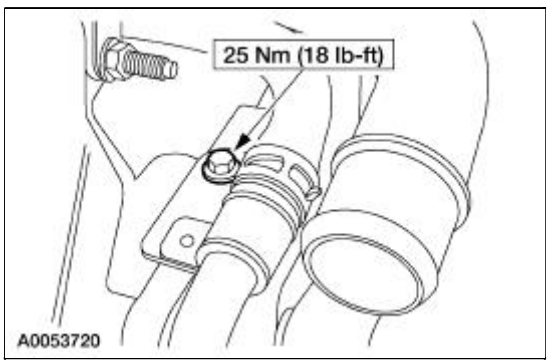
2. Remove the supercharger drive belt cover.



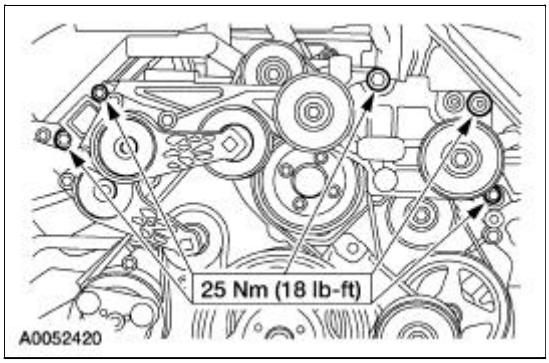
3. Rotate the supercharger belt tensioner clockwise and remove the supercharger belt.



4. Remove the coolant hose mounting bolt.



5. Remove the belt idler support bracket assembly.

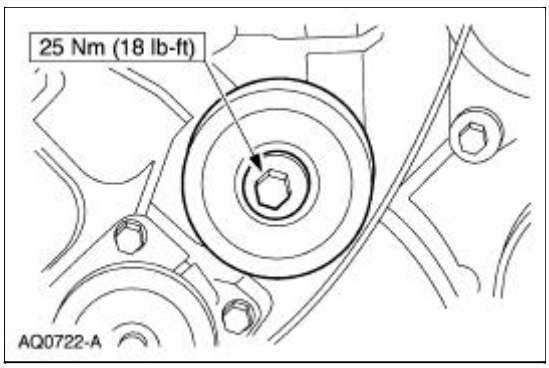


All engines

6. Rotate the belt tensioner and position the accessory drive belt aside.

7. **NOTE:** The procedure listed below can be carried out on any of the 4.6L engine accessory drive belt idler pulleys.

   Remove the bolt and the belt idler pulley.

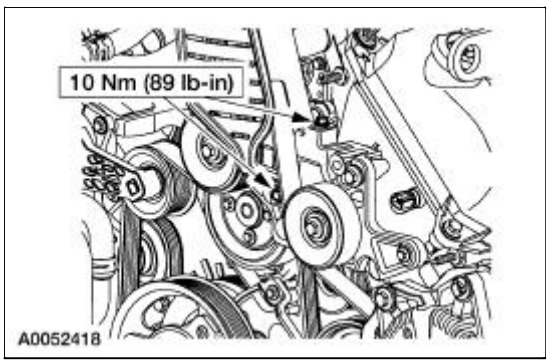


8. To install, reverse the removal procedure. Refer to Accessory Drive or Accessory Drive—Cobra in this section, for accessory belt routing.

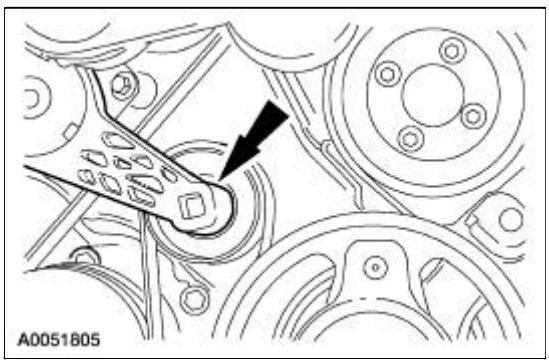
Supercharger Belt Idler Pulley

Removal and Installation

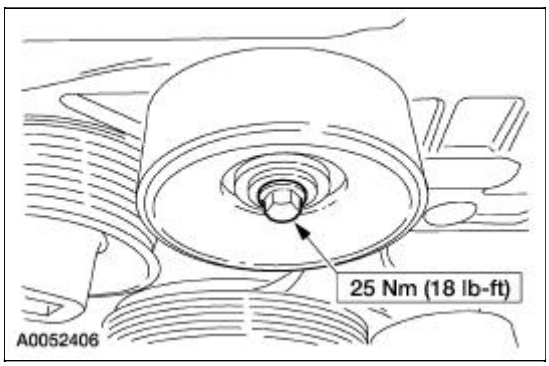
1. Remove the supercharger drive belt cover.



2. Rotate the supercharger belt tensioner clockwise and remove the supercharger belt.



3. Remove the bolt and the supercharger belt idler pulley.



4. To install, reverse the removal procedure.